Eliel Smith

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EDUCATION

Bachelor of Science in Aerospace Engineering | STEM Path to MBA Candidate **May 2026 | May 2027**
The University of Alabama, Tuscaloosa, Alabama | Honors College

RELEVANT COURSEWORK

STEM Business Honors VII (GBA 571), Flight Dynamics & Control (AEM 468), Computational Fluid Dynamics (AEM 420), Propulsion Systems (AEM 408), Compressible Flow (AEM 413), Senior Design (AEM 404), Astronautics (AEM 360), Aerospace Structures (AEM 341), Engineering Analysis (ME 349), Algorithm Development & Implementation (AEM 249), Applied Differential Equations (MATH 238), Linear Algebra (MATH 237), Thermodynamics (ME 215), Small-Scale Engineering Graphics (ENGR 161)

SKILLS

Microsoft Office, SolidWorks, Python, MATLAB, C/C++, Ansys, Soldering, Machining, Public Speaking, Spanish, French, CPR

RELEVANT EXPERIENCE

STEM Business Honors Senior Project **Sep 2025 — Present**
- Worked as a business partner alongside MDA create a revolutionary integrated air and missile defense system

FFVTOL Senior Design Project
Aerodynamics Systems Lead/Chief Technical Writer **Sep 2025 — Present**
- Designed, manufactured, tested, and optimized a fixed-wing modular reconnaissance aircraft with gimbal VTOL capability

The Aerospace Corporation **May 2025 — Aug 2025**
Modeling and Simulation Intern
- Developed commands and scripts in AFSIM to simulate scheduled instantaneous field of view for Golden Dome efforts
- Created a MBSE schema in Cameo Systems modeler intended to map out MDA's program and enterprise capabilities

Human Technology Interaction Lab **Feb 2025 — Present**
Undergraduate Research Assistant
- Researched brain-computer interfaces for the Brain-Drone Race, using neural signals to control drones

Alabama Aerodynamics Experimental Research Operations (A.A.E.R.O.) **Nov 2024 — Present**
Systems Engineering Lead/Chief Technical Writer
- Collaborated with a team of engineering students to build a custom FPV drone and optimize its flight control systems
- Optimized propeller design through CFD simulations, 3-D printing, and propeller stand testing for enhanced aerodynamics
- Soldered wiring to the flight controller utilizing flux for cleaner connections and reliable electrical integration

Crimson Racing (Formula SAE) **Feb 2024 — March 2025**
Aerodynamics Team Member
- Conducted CFD to optimize airflow and minimize drag on the undertray
- Executed layup and composite processes for the undertray, ensuring smooth geometry

Alabama Rocketry Association (ARA) **Sep 2022 — Present**
Liquids/Solids/Business Team Member
- Designed a single-stage liquid bi-propellant rocket to compete in Liquids Dollar Per Foot (DPF) challenge
- Conducted hydrostatic pressure tests on aluminum tanks using ASME's 1.5x FoS
- Designed, researched, and manufactured: igniters, test stand, flame trench, P&ID

ADDITIONAL EXPERIENCE

Vertical Flight Society (VFS) **Apr 2025 — Present**
Membership Chair
- Oversaw and actively engaged in member recruitment and engagement efforts, boosting chapter involvement and retention

Sport Programs Supervisor **Jan 2024 — Present**
- Lead by organizing intramural competitions, maintaining facilities, overseeing officials, and teaching as a clinician

National Society of Black Engineers (NSBE) **Sep 2022 — Present**
Technical Outreach and Community Help (T.O.R.C.H) Chair
- Led workshops on industry-standard technical skills; promoted STEM and community engagement through service events
- Fundraised, networked, and attended company meetings for extended professional development and outlook
- Attended events aimed at promoting academic success, career growth, and inclusivity for minorities in STEM

AWARDS/HONORS

Dean's List, Presidential Div. Scholarship, Engineering Leadership Scholarship, College Board National Recognition, IB Diploma